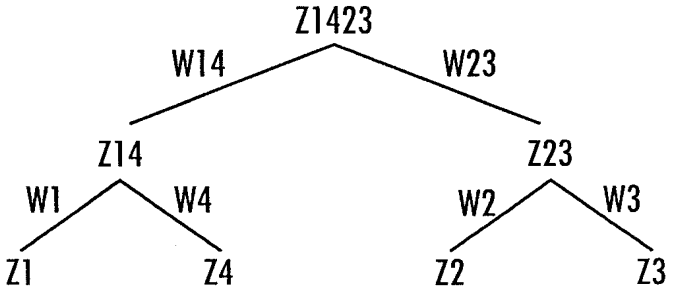
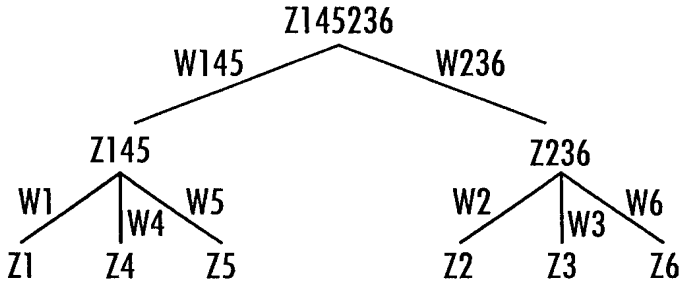
FIG.42



$Z14_with_bias = W1 \cdot Z1_with_bias + W4 \cdot Z4_with_bias$
$Z23_with_bias = W2 \cdot Z2_with_bias + W3 \cdot Z3_with_bias$
$Z1423_with_bias = W14 \cdot Z14_with_bias + W23 \cdot Z23_with_bias$

$Z1_rel = Z1_with_bias - Z14_with_bias$
$Z4_rel = Z4_with_bias - Z14_with_bias$
$Z2_rel = Z2_with_bias - Z23_with_bias$
$Z3_rel = Z3_with_bias - Z23_with_bias$
$Z14_rel = Z14_with_bias - Z1423_with_bias$
$Z23_rel = Z23_with_bias - Z1423_with_bias$

FIG.43



$Z145_with_bias = W1 \cdot Z1_with_bias + W4 \cdot Z4_with_bias + W5 \cdot Z5_with_bias$
$Z236_with_bias = W2 \cdot Z2_with_bias + W3 \cdot Z3_with_bias + W6 \cdot Z6_with_bias$
$Z145236_with_bias = W145 \cdot Z145_with_bias + W236 \cdot Z236_with_bias$

$Z1_rel = Z1_with_bias - Z145_with_bias$
$Z4_rel = Z4_with_bias - Z145_with_bias$
$Z5_rel = Z5_with_bias - Z145_with_bias$
$Z2_rel = Z2_with_bias - Z236_with_bias$
$Z3_rel = Z3_with_bias - Z236_with_bias$
$Z6_rel = Z6_with_bias - Z236_with_bias$
$Z145_rel = Z145_with_bias - Z145236_with_bias$
$Z236_rel = Z236_with_bias - Z145236_with_bias$

FIG.49

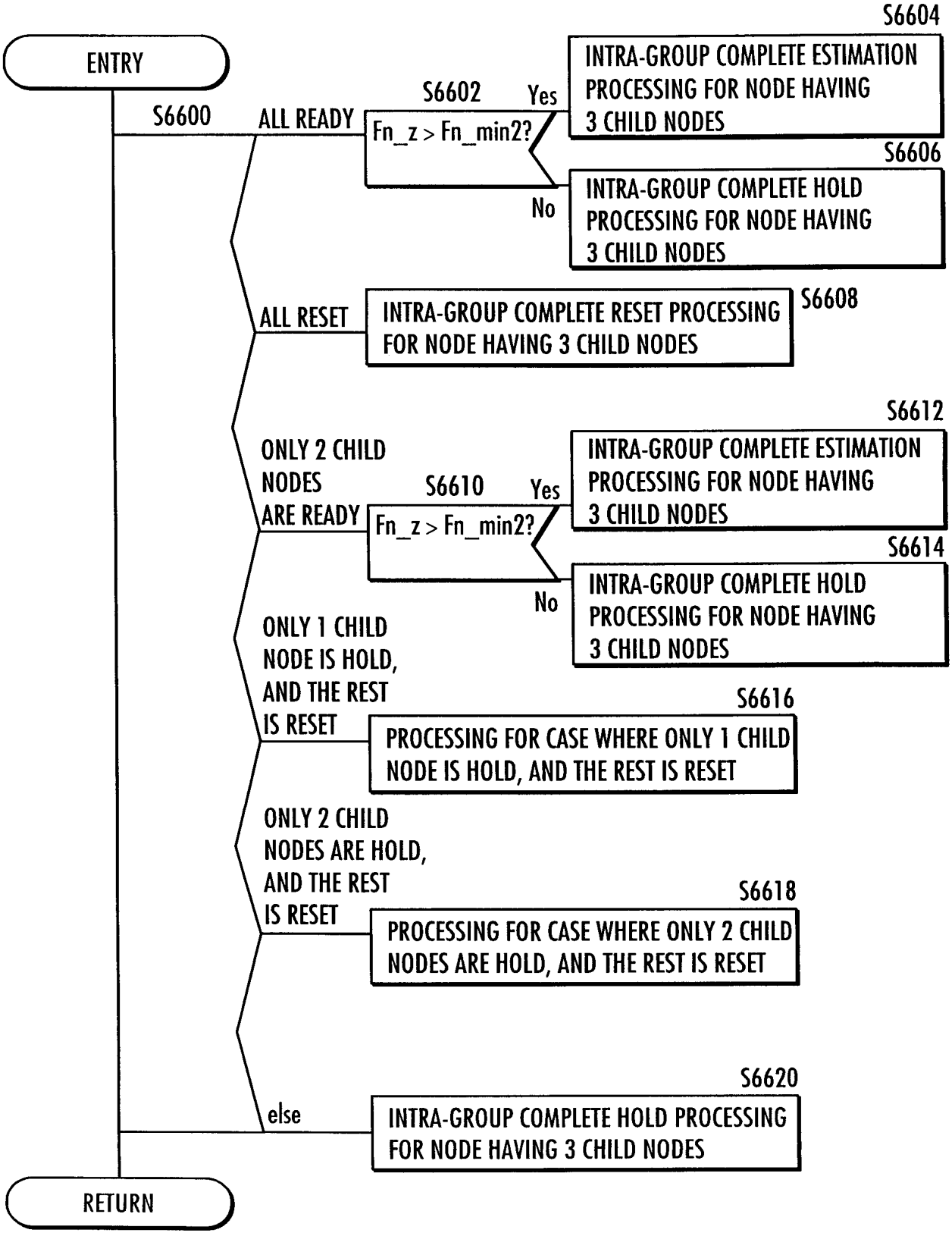

ENTRY
S6600
ALL READY
S6602
Fn_z > Fn_min2?
Yes
No
S6604
INTRA-GROUP COMPLETE ESTIMATION PROCESSING FOR NODE HAVING 3 CHILD NODES
S6606
INTRA-GROUP COMPLETE HOLD PROCESSING FOR NODE HAVING 3 CHILD NODES
ALL RESET
INTRA-GROUP COMPLETE RESET PROCESSING FOR NODE HAVING 3 CHILD NODES
S6608
ONLY 2 CHILD NODES ARE READY
S6610
Fn_z > Fn_min2?
Yes
No
S6612
INTRA-GROUP COMPLETE ESTIMATION PROCESSING FOR NODE HAVING 3 CHILD NODES
S6614
INTRA-GROUP COMPLETE HOLD PROCESSING FOR NODE HAVING 3 CHILD NODES
ONLY 1 CHILD NODE IS HOLD, AND THE REST IS RESET
S6616
PROCESSING FOR CASE WHERE ONLY 1 CHILD NODE IS HOLD, AND THE REST IS RESET
ONLY 2 CHILD NODES ARE HOLD, AND THE REST IS RESET
S6618
PROCESSING FOR CASE WHERE ONLY 2 CHILD NODES ARE HOLD, AND THE REST IS RESET
else
S6620
INTRA-GROUP COMPLETE HOLD PROCESSING FOR NODE HAVING 3 CHILD NODES
RETURN

FIG.54

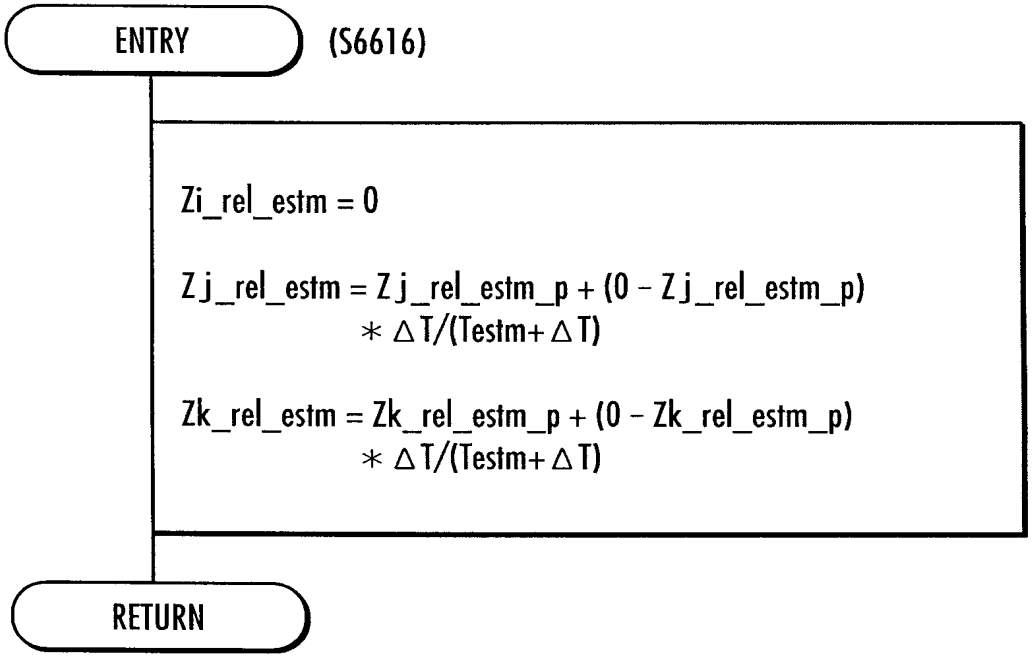

ENTRY
(S6616)
Zi_rel_estm = 0
Zj_rel_estm = Zj_rel_estm_p + (0 - Zj_rel_estm_p)
* ΔT/(Testm+ΔT)
Zk_rel_estm = Zk_rel_estm_p + (0 - Zk_rel_estm_p)
* ΔT/(Testm+ΔT)
RETURN

FIG.62

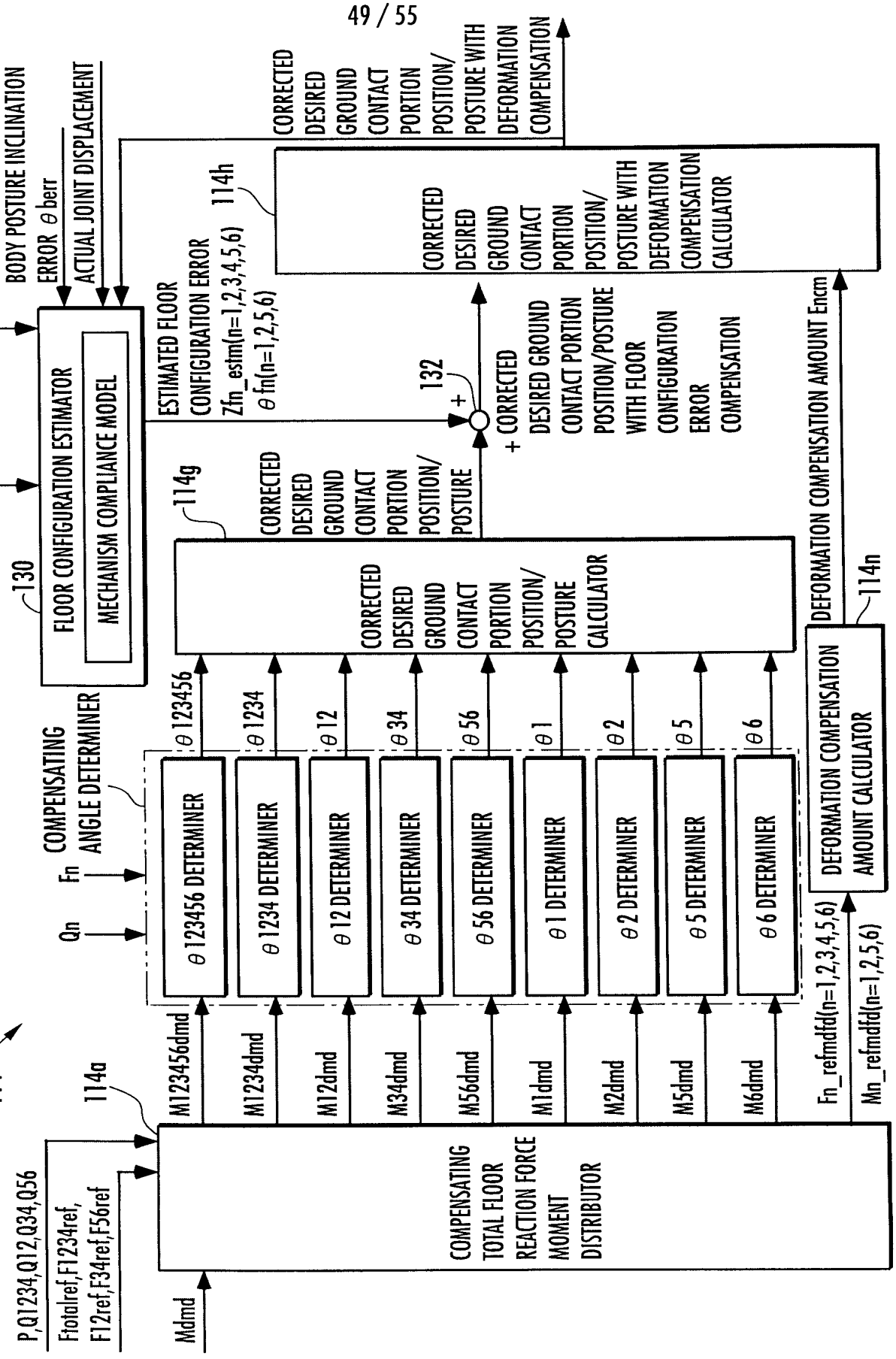
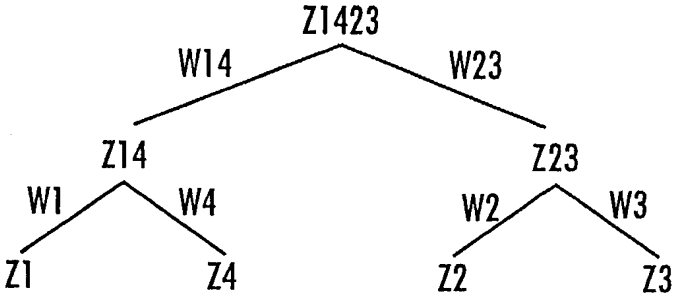

P,Q1234,Q12,Q34,Q56
Ftotalref,F1234ref,
F12ref,F34ref,F56ref
Mdmd
114
114a
COMPENSATING TOTAL FLOOR REACTION FORCE MOMENT DISTRIBUTOR
M123456dmd
M1234dmd
M12dmd
M34dmd
M56dmd
M1dmd
M2dmd
M5dmd
M6dmd
θ123456 DETERMINER
θ1234 DETERMINER
θ12 DETERMINER
θ34 DETERMINER
θ56 DETERMINER
θ1 DETERMINER
θ2 DETERMINER
θ5 DETERMINER
θ6 DETERMINER
θ123456
θ1234
θ12
θ34
θ56
θ1
θ2
θ5
θ6
Qn
Fn
COMPENSATING ANGLE DETERMINER
130
FLOOR CONFIGURATION ESTIMATOR
MECHANISM COMPLIANCE MODEL
Qn(n=1,2,3,4,5,6)
Fn_act(n=1,2,3,4,5,6)
Mn_act(n=1,2,3,4,5,6)
BODY POSTURE INCLINATION ERROR θberr
ACTUAL JOINT DISPLACEMENT
ESTIMATED FLOOR CONFIGURATION ERROR
Zfn_estm(n=1,2,3,4,5,6)
θfn(n=1,2,5,6)
114g
CORRECTED DESIRED GROUND CONTACT PORTION POSITION/POSTURE CALCULATOR
CORRECTED DESIRED GROUND CONTACT PORTION POSITION/POSTURE
132
+
+ CORRECTED DESIRED GROUND CONTACT PORTION POSITION/POSTURE WITH FLOOR CONFIGURATION ERROR COMPENSATION
114h
CORRECTED DESIRED GROUND CONTACT PORTION POSITION/POSTURE WITH DEFORMATION COMPENSATION CALCULATOR
CORRECTED DESIRED GROUND CONTACT PORTION POSITION/POSTURE WITH DEFORMATION COMPENSATION
DEFORMATION COMPENSATION AMOUNT Encm
114n
DEFORMATION COMPENSATION AMOUNT CALCULATOR
Fn_refmdfd(n=1,2,3,4,5,6)
Mn_refmdfd(n=1,2,5,6)

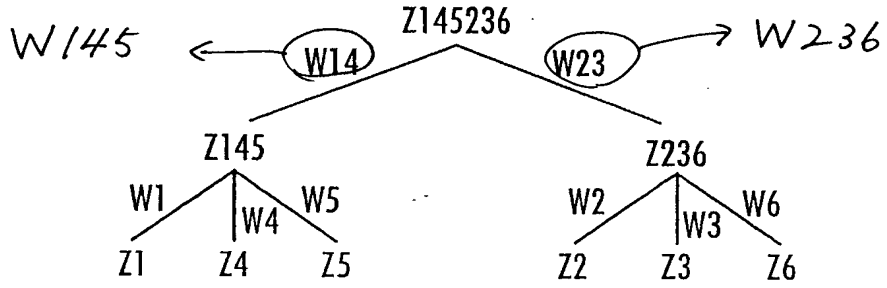
FIG.42



$Z14_with_bias = W1 \cdot Z1_with_bias + W4 \cdot Z4_with_bias$
$Z23_with_bias = W2 \cdot Z2_with_bias + W3 \cdot Z3_with_bias$
$Z1423_with_bias = W14 \cdot Z14_with_bias + W23 \cdot Z23_with_bias$

$Z1_rel = Z1_with_bias - Z14_with_bias$
$Z4_rel = Z4_with_bias - Z14_with_bias$
$Z2_rel = Z2_with_bias - Z23_with_bias$
$Z3_rel = Z3_with_bias - Z23_with_bias$
$Z14_rel = Z14_with_bias - Z1423_with_bias$
$Z23_rel = Z23_with_bias - Z1423_with_bias$

FIG.43



$Z145_with_bias = W1 \cdot Z1_with_bias + W4 \cdot Z4_with_bias + W5 \cdot Z5_with_bias$
$Z236_with_bias = W2 \cdot Z2_with_bias + W3 \cdot Z3_with_bias + W6 \cdot Z6_with_bias$
$Z145236_with_bias = W145 \cdot Z145_with_bias + W236 \cdot Z236_with_bias$

$Z1_rel = Z1_with_bias - Z145_with_bias$
$Z4_rel = Z4_with_bias - Z145_with_bias$
$Z5_rel = Z5_with_bias - Z145_with_bias$
$Z2_rel = Z2_with_bias - Z236_with_bias$
$Z3_rel = Z3_with_bias - Z236_with_bias$
$Z6_rel = Z6_with_bias - Z236_with_bias$
$Z145_rel = Z145_with_bias - Z145236_with_bias$
$Z236_rel = Z236_with_bias - Z145236_with_bias$

FIG.49

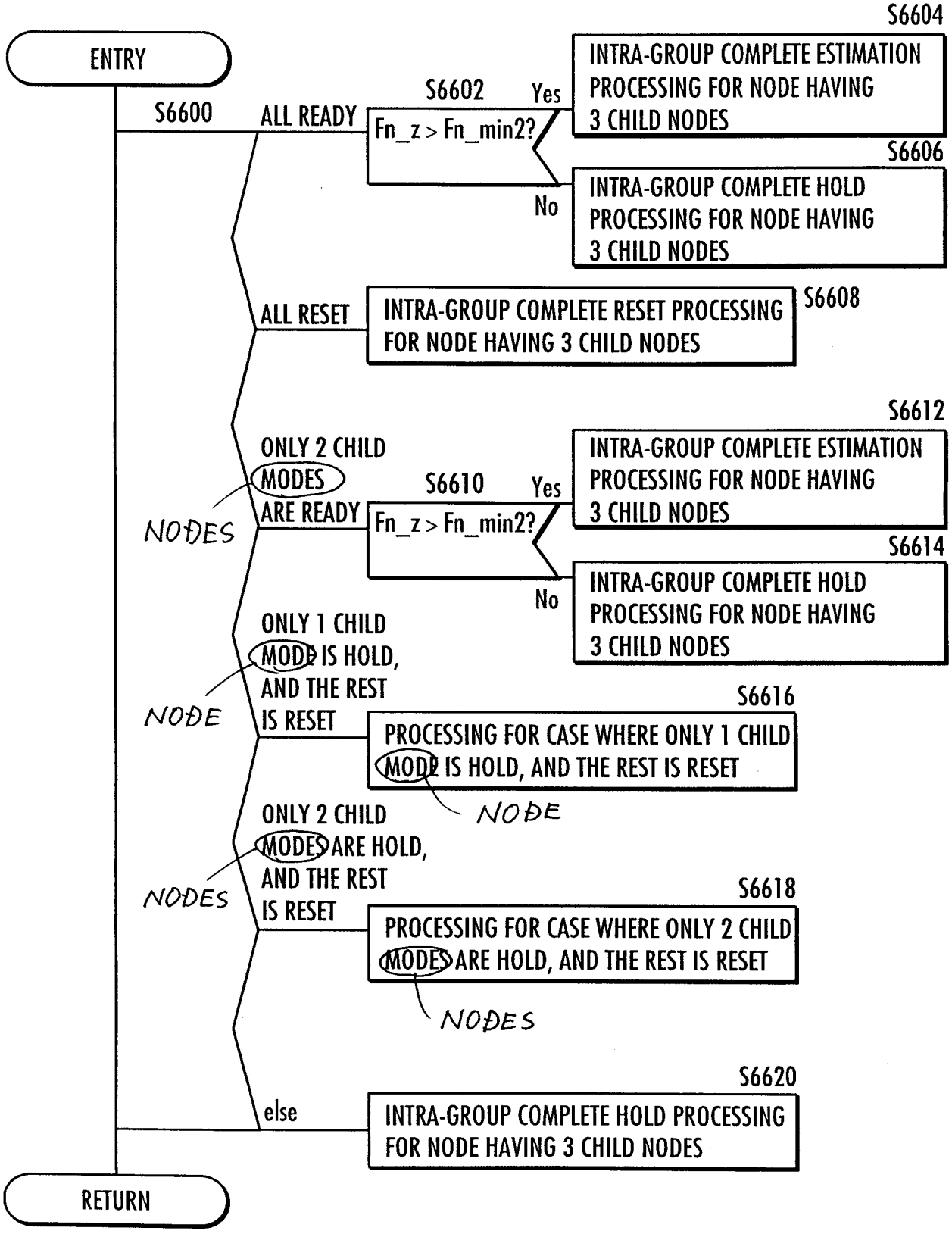
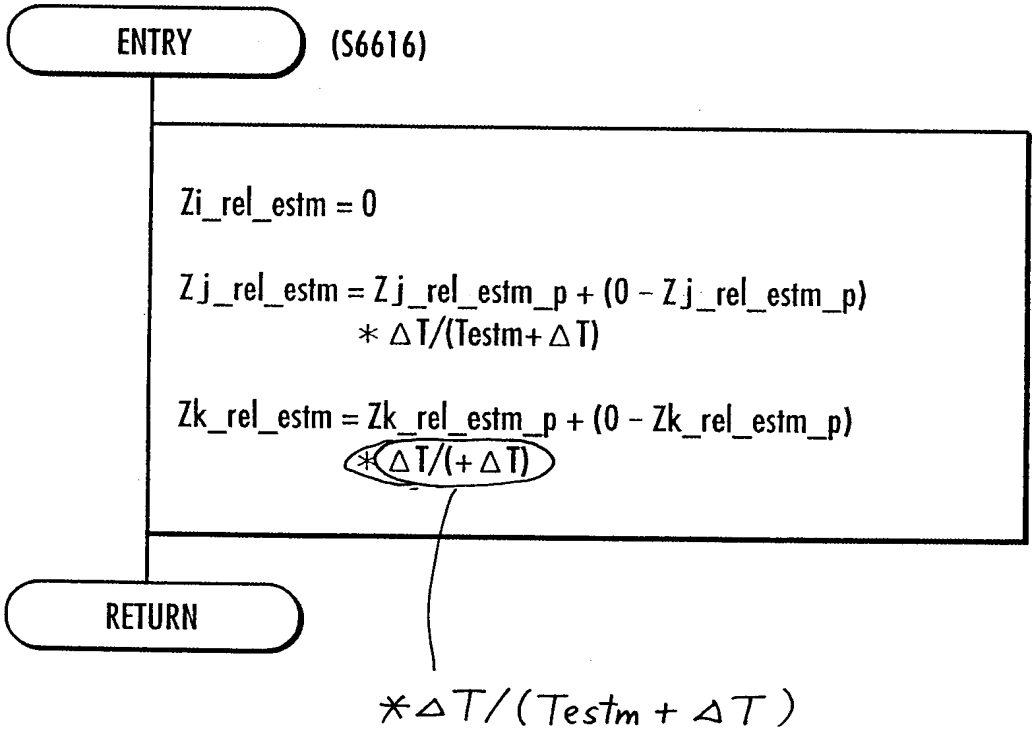

ENTRY
S6600
ALL READY
S6602
Fn_z > Fn_min2?
Yes
No
S6604
INTRA-GROUP COMPLETE ESTIMATION PROCESSING FOR NODE HAVING 3 CHILD NODES
S6606
INTRA-GROUP COMPLETE HOLD PROCESSING FOR NODE HAVING 3 CHILD NODES
ALL RESET
INTRA-GROUP COMPLETE RESET PROCESSING FOR NODE HAVING 3 CHILD NODES
S6608
ONLY 2 CHILD MODES ARE READY
NODES
S6610
Fn_z > Fn_min2?
Yes
No
S6612
INTRA-GROUP COMPLETE ESTIMATION PROCESSING FOR NODE HAVING 3 CHILD NODES
S6614
INTRA-GROUP COMPLETE HOLD PROCESSING FOR NODE HAVING 3 CHILD NODES
ONLY 1 CHILD MODE IS HOLD, AND THE REST IS RESET
NODE
S6616
PROCESSING FOR CASE WHERE ONLY 1 CHILD MODE IS HOLD, AND THE REST IS RESET
NODE
ONLY 2 CHILD MODES ARE HOLD, AND THE REST IS RESET
NODES
S6618
PROCESSING FOR CASE WHERE ONLY 2 CHILD MODES ARE HOLD, AND THE REST IS RESET
NODES
else
S6620
INTRA-GROUP COMPLETE HOLD PROCESSING FOR NODE HAVING 3 CHILD NODES
RETURN

FIG.54


ENTRY
(S6616)
Zi_rel_estm = 0
Zj_rel_estm = Zj_rel_estm_p + (0 - Zj_rel_estm_p)
* ΔT/(Testm+ΔT)
Zk_rel_estm = Zk_rel_estm_p + (0 - Zk_rel_estm_p)
*(ΔT/(+ΔT)
RETURN
*ΔT/(Testm + ΔT)

Annotated Sheet Showing Changes

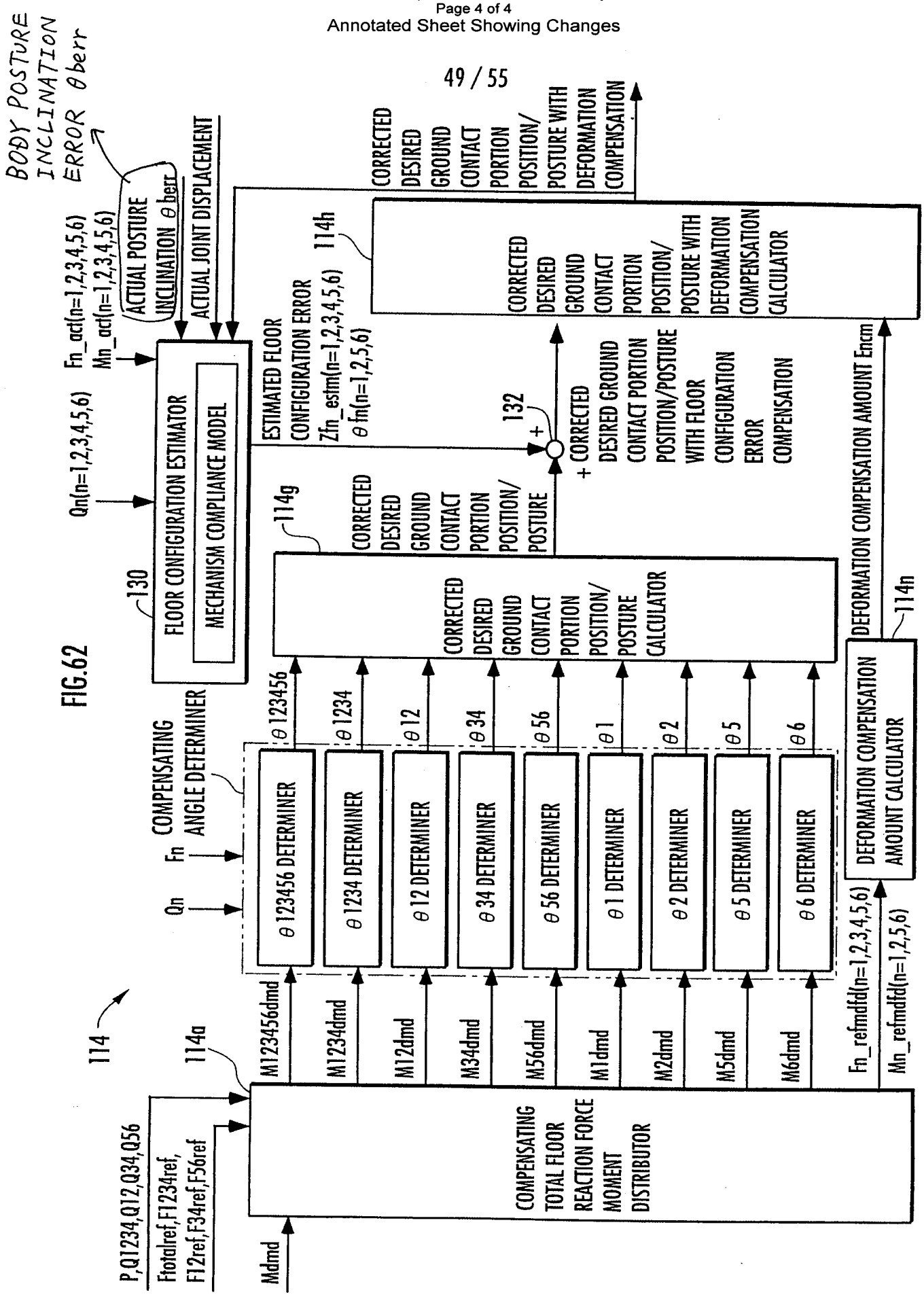



FIG.62